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Key words: leadership, rewards, teams, training, vision

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Key words: best practice sharing, business excellence, metrics,
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Key words: employee development, team and quality enhancement programs, training

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Key words: action planning, barriers to continuous improvement, culture change, networking, personal strategies

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Key words: consortium, deployment, implementation, ISO 9000, Maryland

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Key words: employee involvement, empowerment group, health care, improvement, quality

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Key words: bootstrap technique, nonparametric prediction interval, Pareto proportions

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Key words: comparative judgment, constrained regression, quality function deployment

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Key words: empowered work teams, management by objectives (MBO), performance measures, total quality management, vision

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Hessamedin Bayan, Chairman of the Board, Iranian Industries Training and Research Center, Teheran, Iran

James P. Zimmerman, Consultant, Kepner-Tregoe, Inc., Princeton, NJ

Key words: improvement strategies, industrially developing countries, problem solving, teamwork, total quality management

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Key words: conformity assessment, global impact, ISO 9000, product liability implications, technical file
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Key words: corrective action, preventive action, QS-9000, quality tools

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Key words: advancing quality system, customer, process

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Key words: gemba, Kano, QFD, quality function deployment, voice of customer

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Gerard W. Paradis, Director of ISO 9000 Services, Information Mapping, Inc., Waltham, MA

James R. DiNitto, President, International Quality Systems, Waltham, MA

Key words: accessible detail, chunking, consistency, hierarchy, information block, information map, integrated graphics, labeling, relevance

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Anthony C. Fletcher, Director Field Operations, Eagle Group USA, Inc., Southfield, MI

Michael P. Labadie, Manager, Quality and Customer Service, BASF Corporation, Wyandotte, MI

Key words: management representative (MR), QS-9000, quality system manual (QSM), quality system procedure (QSP)

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Roger Howe, DNV Certification—U.S.

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Lee Johnson, Manager of Quality Assurance, The Deco Group, Royal Oak, MI

Key words: gap analysis, ISO 9000, steering committee, strategic plan

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Key words: alignment, continuous improvement of processes, educational audits, quality education, standards

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Robert H. Moore, Manager of Financial Systems, University of Western Ontario, London, ON, Canada

Key words: cost of quality, improvement, measurement tool

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Key words: cost of quality, ISO 9000, measurement, QS-9000, quality cost implementation

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Key words: continuous improvement, quality management, quality system

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Key words: change management, improvement process

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Key words: council, improvement, India, Juran, teams

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Key words: Canadian Standards Association, international competitiveness, ISO 9000, total quality management

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Allentown, PA
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Key words: classroom techniques, feedback methods, total quality
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Dr. John Sinn, Professor and Executive Director, Center for Quality,
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Bowling Green, OH

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Key words: supplier evaluation program

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William A. Brown, President, William A. Brown & Associates, Mount
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Key words: coaching, leadership, Rate-The-Boss

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Jerry Dotson, Director Technical Education, AT&T Wireless Services,
Inc., Redmond, WA

Key words: certification, DACUM, performance technology,
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Jack Pickard, Vice President Service, Roberts Express, Inc., Akron, OH

Key words: competencies, empowerment, Roberts Express, self-directed
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John Hansen, Manager, Training and Software Services, Xerox Quality
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Key words: cross-functional teams, fact-based analysis, problem
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Brandon Kerkstra, Certified Assessor/Account Manager, Entela, Inc.,
Grand Rapids, MI

Key words: benchmarking, continuous improvement, internal auditing,
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Victoria D. Werman, Principal Technical Specialist, McDonnell
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Key words: critical path, enterprise, improvement, self governance

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Jose A. Campo, Director QM/RA, Coulter Corporation, Miami, FL
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Inc., Madison, WI

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Oscar Imbellone, President, and Ana Maria Lopez, TQM Manager,
Reginerias de Maiz, Buenos Aires, Argentina

Key words: balanced scorecard, customer survey, supplier evaluation,
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Kyoto, Japan

Key words: organisational culture, pyramid principle, quality culture

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Danielle Wong, Director, Mauritius Export Processing Zones
Association, Port Louis, Mauritius

Key words: awards, EPZ companies, public sector, quality management
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John H. Barr, Senior Managing Partner, Xerox Quality Services,
Rochester, NY

Key words: Employee Motivation and Satisfaction (EM&S), Malcolm
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Georges Buzaglo, Ph.D., President, Management Strategies
International, Inc., Philadelphia, PA

Susan A. Wheelan, Ph.D., Temple University, Philadelphia, PA

Key words: team assessment, team building, team effectiveness, team
research

T310 Transformations to Quality Organizations (SI)

No paper submitted

T311 ASQC Research Fellowship Grant Program (SI)

No paper submitted

T312 The Power of Teams in Education and the Newsroom

Teams and Conferences: Redesigning a Newspaper

742

Dennis Hartig, Managing Editor, Virginian-Pilot, Norfolk, VA

Helene F. Uhlfelder, Ph.D., Director, R&D, Miller Howard Consulting
Group, Atlanta, GA

Key words: continuous improvement, search conferences, team
management

Quality Teams in Education—Fact or Fiction? A Leadership Challenge

750

Mary Ann Smialek, Lead Consultant, Quest Associates, Wexford, PA

Key words: educational change facilitation, necessary elements for
teams, power of teams, team-building, team empowerment, Team
Empowerment Model for Education K-12

T313 Deming Study Group (SI)

No paper submitted

T314 Transformations to Quality Organizations (SI)

No paper submitted

T315 How to Create High-Performance Work Teams (for the Quality Process)

No paper submitted

WEDNESDAY, MAY 7, 1997

W100 Process Capability—Beyond the Conventional

A Strategy for Mastering Variation 760

Mats Deleryd, Luleå University, Division of Quality Technology and Statistics, Luleå, Sweden

Key words: improvement methods, process capability indices, process capability studies, variation

Virtual Process Capability 769

Neal A. Mackertich, Senior Quality Engineer, Raytheon Electronic Systems, Sudbury, MA

Vic Stephens, Statistical Quality Engineering Manager, Raytheon Aircraft, Wichita, KS

Key words: design of experiments, dimensional management, Monte Carlo simulation, process capability

C_{plog}: A Capability Index for Non-Normal Processes 774

Edwin E. O'Neil Jr., Caterpillar Inc., Mossville, IL

K. S. Krishnamoorthi, Bradley University, Peoria, IL

Key words: capability index, C_{plog}, lognormal model, non-normal populations, unilateral tolerance

W101 Delight the Public Through Quality-Oriented City Government (NW)

Public Sector Quality Comes of Age: Tacoma's Story 782

Genelle Birk and Ray E. Corpuz Jr., City of Tacoma, Tacoma, WA

Transforming Local Government with Quality Principles 788

William S. Chiat, Consultant/Training and Transformation Coach, City of Oxnard, Oxnard, CA

Key words: business practices, change, leadership, organization development, teamwork

Transforming to Quality Organizations: The City of Madison Experience 800

Francois Sainfort, Associate Professor, University of Wisconsin-Madison, Madison, WI

W1102 Overcoming Barriers to Change Initiative (IS)

See MI202

WI103 How to Create High-Performance Work Teams (for the Quality Process)

See TI315

W104 International Perspective on Quality Management in the Next Century (SI)

No paper submitted

W105 Future Strategies for Health Care (SI)

No paper submitted

W106 Quality Management in the Chemical and Process Industries (D/TC)

QS-9000 Impact on Chemical and Polymers Industries

810

James S. Bigelow and William E. Cox, TQM Consulting, Houston, TX

Key words: automotive industry, ISO 9000, process industries, quality management, quality systems

A Consistent Approach to Inter-Laboratory Precision

814

Russell C. Dillow, Quality Assurance Specialist, Chevron Chemical Company, Orange, TX

Bradford S. Brown, Consultant—Quality & Statistics, Houston, TX

Key words: bias, circle, control chart, inter-laboratory testing, measurement process precision

W107 Achieving a Successful Long-Term Focus on Quality (D/TC)

Managing Statistical Engineering

817

Peter D. Shainin, Richard D. Shainin, and M. Timothy Nelson, Shainin Consultants, Inc., Carson City, NV

Key words: problem solving, training cycles, Pareto principle

Managing TQM in the Dysfunctional Organization

833

Roland D. Whitsell, Associate Professor/Business, Volunteer State Community College, Gallatin, TN

Key words: conflict, continuous organizational improvement, manager

W108 Flynt Fabrics—A Journey to Excellence (D/TC)

Flynt Fabrics, Inc.: A Journey to Excellence

844

Ajay Bhardwaj, Vice President, Corporate Planning and Operations,
Leonard Brown, Traffic and Warehouse Manager and FQI
Coordinator, and Mary Copeland, Director of Quality Improvement
and Human Resources, Flynt Fabrics, Inc., Graham, NC

W109 Changes in the World of Reliability Provide a Superior Focus on Reliability Issues During Product and Process Design (D/TC)

Prediction of Reliability and Spare Parts of Machinery

847

Lev M. Klyatis, Board of Directors, International Association of Arts &
Sciences, inc., New York, NY

Key words: accelerated, accuracy, distribution, failures, testing

Reliability Distributions, Warranties, and Cost

854

Daniel J. O'Leary, Product Quality Manager, MR Division, Picker
International, Inc., Cleveland, OH

Key words: exponential distribution, warranty cost, warranty taxonomy,
Weibull distribution

Design for Reliability: Megatrends to Look Out For

861

Gary S. Wasserman, Ph.D., Dept. Industrial & Mfg. Eng., Wayne State
University, Detroit, MI

Key words: design for reliability, FMEA, QFD, robust design

W110 Product Safety Methodologies (LE)

Ergonomic Quality: Using Biomechanics Technology to Create a Strategic Advantage in Product Design

869

Clifford M. Gross, Ph.D., Research Professor and Director, University of
South Florida, Tampa, FL

Key words: biomechanics, design, ergonomics, product development,
user comfort

Smart Knowledge Base for Safety Quality Control

880

Brent E. Wholeben, Ph.D., Northern Illinois University, DeKalb, IL
George M. Hiles, President, and Kenneth B. Gentis, Illinois Safety
Council, Chicago, IL

Key words: accident, curriculum, education, investigation, OSHA

W111 Does Your Company Measure Up? (DS)

Process Maturity Classes

892

Donald M. McNamara, Corporate Program Manager, General Electric,
Fairfield, CT

Key words: information systems, process customization, projects,
reengineering, stability

CMM: A Road Map to Software Quality

898

Sowmyan Raman, The Boeing Co., Seattle, WA

Key words: CMM, Capability Maturity Model, process improvement,
software processes, software quality

W112 Use of Robust Methods for Successful New Product Design (DS)

Assessing Design Quality During Product Development

907

William A. Berezowitz, Manager, Quality and Process, GE Medical
Systems, Milwaukee WI

Tsong-how Chang, Associate Professor, University of Wisconsin-
Milwaukee, Milwaukee, WI

Key words: Bayesian statistics, process potential, tolerance intervals,
upstream quality improvement

Perspectives on Robust Design: Globalization and the Future

918

Barbara Price, Associate Dean for Academic Affairs, Kelly Price,
Associate Professor, and Gary Wasserman, Associate Professor,
Wayne State University, Detroit, MI

James D. Portwood, Professor and Director, Center for European
Studies, Temple University, Philadelphia, PA

Key words: flexibility, robust design, robustness, strategy

W200 RAB Activities—How Quality Professionals Can Benefit

No paper submitted

W201 Fresh Team Building and Performance Management Ideas (NW)

*The Concordance Approach to Team-Building: Achieving Agreement on
Values and Objectives in a Competitive Business World*

930

Rebecca L. Schiff, Ph.D., Principal, Corporate Concordance, Ann Arbor,
MI

Key words: company style, concordance, decision-making process,
objective, recruitment method, strategic planning, team-building,
values

- Human Performance Management: The People Side of Quality* 938
 Marcey Uday, Executive Vice President, and Tom Giberson, Consultant,
 Prism Performance Systems, Farmington Hills, MI
 Key words: appraisal, compensation, core competencies, evaluation,
 selection

- Becoming a Business-Focused Team Organization* 948
 Anna VerSteeg, Competitive Solutions Inc. Raleigh, NC

WI202 Creative Thinking for Better Process and Service Designs (IS)

- Creativity in Process Redesign and Reengineering: An Interactive Tutorial* 954
 Paul Plsek, Paul E. Plsek & Associates, Inc., Roswell, GA
 Key words: creativity, design, innovation, reengineering, total quality
 management

WI203 Synchronous Flow Manufacturing: A Hands-On Experience (IS)

see MI203

W204 International Perspective on Quality Management in the Next Century (SI)

No paper submitted

W205 ASQC and IHI: Collaborating for Community-Based Quality (SI)

No paper submitted

W206 President's Session

No paper submitted

W207 QS-9000 Status, Improvements, and Perspectives (D/TC)

- QS-9000: Auditing to a Strategic Intent* 957
 H. J. Bajaria, President, Multiface, Inc., Garden City, MI
 Key words: ISO 9000, QS-9000, quality audits

- 1997 AIAG and ASQC Automotive Division Quality Survey* 961
Ally H. Hamood, Manager Quality Systems, General Motors Corporation, Warren, MI
David A. Lalain, Quality Systems Manager, PPG Industries, Cleveland, OH
Key words: auto industry, Big Three, customer survey, ISO/QS-9000, supplier quality systems
- Chrysler, Ford, General Motors QS-9000 Update* 963
R. Dan Reid, Manager, Supplier Quality Development, General Motors Corporation, Pontiac, MI
Key words: automotive, international, QS-9000, registration
- W208 Community Quality Councils: Improving Communities' Quality of Life (D/TC)
- Measuring Community Quality of Life: The Ann Arbor Quality Indicators Project* 965
Jeff Jackson, Quality Indicators Project Steering Committee, Ann Arbor, MI
Key words: community, community quality improvement, indicators, quality of life
- W209 Customer-Driven Services Using QFD (D/TC)
- No paper submitted*
- W210 Quality Trends (VS)
- Quality: The Next Fifty Years* 974
Dr. John R. Dew, Manager, Mission Success, Lockheed Martin Utility Services, Paducah, KY
Key words: academic, education, future, globalization, profession
- Customer-Supplier: Equal Relationship* 982
Philip R. Heinle, Owner, Quality Consulting, Okauchee, WI
Key words: customer, partnership, relationship, supplier
- W211 Efficient and Effective Testing and Measurement Tools (TL)
- Planning Efficient Software Tests* 991
Madhav S. Phadke, President, Phadke Associates, Inc. Colts Neck, NJ
Key words: design of experiments, orthogonal arrays, robust design, robust testing, software quality, software reliability, software testing, taguchi methods, test planning

An Effective Development Quality Measurement

999

T. Earl Poulson, Customer Support Director, and David P. Surin,
Member of the Technical Staff, Bell Labs-Lucent Technologies, Inc.,
Naperville, IL

Key words: Single Best Quality Indicators (SBQI), Weighted Problem
Level Index (WPLI)

W212 Problems Solved—Different Folks, Different Approaches (TL)

Growth@: A Model for Affecting Continuous Improvement

1004

Joel V. Liberto, Quality Manager, and Jo Ann A. Sharp, Senior Process
Engineer, Freudenberg-NOK General Partnership, Manchester, NH

Key words: continuous improvement, kaizen, one-piece flow, Toyota
Production System (TPS)

Storyboards

Implementation of TQM Programs in Small Business Organizations

1013

Sohail Anwar, Assistant Professor, Penn State Altoona, Altoona, PA

Key words: small business organizations, TQM key components, TQM
programs

Defining Quality—The Consumer Quality Threshold

1026

Lorraine Curtis, RJ Reynolds, Winston-Salem, NC

The Status of Quality Management in the Airline Industry

1032

Karl Koller, Managing Director, Koller & Partner, Mutschellen,
Switzerland

I Fear Gifts Bearing Greeks

1041

Hugh R. McAllister, Manager of Quality Systems and Training, Post,
Buckley, Schuh, & Jernigan, Inc., Winter Park, FL

Forensic Data Quality Improvement Techniques

1049

Kurt E. Murine, Senior Deputy Coroner, Orange County Sheriff-Coroner
Division, Santa Ana, CA

Gerald E. Murine, President, METRIQS International, San Juan
Capistrano, CA

Key words: build, forensics, measurement, metric, quality attribute

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